

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 07-057913

(43)Date of publication of application : 03.03.1995

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(51)Int.Cl. H01F 1/08

B22F 1/00

C22C 33/02

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(21)Application number : 05-198056 (71)Applicant : HITACHI METALS LTD

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### (54) PRODUCTION OF RARE EARTH PERMANENT MAGNET

#### (57)Abstract:

**PURPOSE:** To obtain an R-T-B based permanent magnet having high coercive force by mixing an R-T-B based alloy powder principally composed of R<sub>2</sub>T<sub>14</sub>B and an' R-T based alloy powder having low R eutectic ratio and low melting point.

**CONSTITUTION:** In the method for producing an R-T-B based rare earth permanent magnet having main compositional phase, i.e. a main phase principally comprising an R<sub>2</sub>T<sub>14</sub>B based intermetallic compound (R represents one or more than one kind of rare earth element including Y, T represents one or more than one kind of transition metal) and an R rich phase, the R-T-B based alloy powder containing 95% or above of R<sub>2</sub>T<sub>14</sub>B based intermetallic compound in surface ratio admixed with 8-15wt.% of R-T-B based alloy powder containing 10% or less of R eutectic in surface ratio and then the mixture is molded and sintered to produce a rare earth permanent magnet. This method produces an R-T-B based permanent magnet having high coercive force

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[Date of request for examination]

[Date of sending the examiner's decision  
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[Kind of final disposal of application other  
than the examiner's decision of rejection  
or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's  
decision of rejection]

[Date of requesting appeal against  
examiner's decision of rejection]

[Date of extinction of right]

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